

ABSTRACT

A combustible gas sensor includes an active element in electrical connection with a measurement circuit. The measurement circuit includes a thermistor network to compensate for the effect of changes in ambient temperature to the resistance of the active element. Another combustible gas sensor includes an active element having a geometric surface area no greater than approximately 0.5 mm^2 in electrical connection with a measurement circuit. The measurement circuit includes a compensator that compensates for the effect of changes in ambient temperature to the resistance of the active element without compensating for heat lost by thermal conduction from the active element. A method of sensing gas including the steps of: (i) providing a catalytic active element having a geometric surface area sufficiently small such that the effect upon the output of the active element of heat lost from the active element by thermal conduction is relatively small, and (ii) compensating for only the effect of changes in ambient temperature upon the output of the active element.